# BY ORDER OF THE COMMANDER AIR UNIVERSITY

# AIR UNIVERSITY INSTRUCTION 36-2201 19 NOVEMBER 2002



**Personnel** 

# SCHEDULING AND CONDUCTING WARGAMES

#### COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

**NOTICE:** This publication is available digitally on the 42d Communications Squadron web site at: http://www.maxwell.af.mil/42abw/42cs/. If you lack access, contact the Publications <u>Management</u> office.

OPR: CADRE/WG Certified by: CADRE/CC (Col Craig C. Goodbrake) (Col Bobby J. Wilkes)

Supersedes: AUI 36-2201, 20 Mar 00 Pages: 12

Distribution: F

This instruction specifies responsibilities and establishes procedures for scheduling and conducting wargames. It defines the relationship between the College of Aerospace Doctrine, Research and Education (CADRE) and Air University (AU) wargame sponsors. It addresses methods to reduce wargame scheduling conflicts among AU organizations, and between AU and non-AU wargame requirements. This instruction applies to all AU organizations requesting CADRE support and is recommended as a guide for all non-AU organizations conducting wargames at Air Force Wargaming Institute (AFWI).

#### **SUMMARY OF REVISIONS**

Updates organizational titles and streamlines verbiage. Introduces the AU Wargame Integration Group (WIG) (para 2 and attachment 1) and the responsibilities of CADRE/CC in the wargaming process (para 2). Refines the procedure for scheduling AU-sponsored wargames (para 3).

- \*1. General. A successful wargame models the environment that the sponsor desires in order to achieve the desired learning objectives set forth in the Wargame Requirements Document (WRD). A collaborative effort between the sponsoring organization and CADRE will produce the desired educational results. This requires commitment, cooperation, coordination and most importantly an understanding of roles and responsibilities during wargame development, game play and execution.
- 1.1. The warlord and wargame director must coordinate efforts during the life cycle of the wargame to integrate each organization's full capabilities to meet educational objectives.
- 1.2. The warlord is responsible for the development and achievement of desired learning objectives (DLOs). Wargame sponsors should be involved in game development to meet their objectives (i.e. determine successful completion of milestones/phases of wargame to meet objectives).

- 1.3. The wargame director is responsible for the organizational details to ensure effective execution of the wargame. (i.e. control team work schedules, software and hardware configuration, and control system backups).
- 1.4. The wargame director, in conjunction with the warlord, determines how to proceed during the definition, design, and testing phases of the wargame.
- 1.5. The wargame director designs the development and execution portions of the wargame. The sponsor will review the design to ensure compatibility with sponsor objectives.

## **★2. Responsibilities.**

#### 2.1. Wargame Integration Group:

- 2.1.1. Serves as an information exchange for wargames held at AU.
- 2.1.2. Highlights wargame scheduling conflicts and seeks solutions.
- 2.1.3. Identifies opportunities for participation or assistance in wargames.
- 2.1.4. Is a forum to share information regarding wargaming tools, including AFWI, DoD, modeling and simulation center, or commercial tools.

# 2.2. Wargame Sponsor:

- 2.2.1. Annually reviews and approves organization's WRD.
- 2.2.2. Appoints a staff representative to serve as the warlord. Ensures AU-sponsored wargames are developed in coordination with CADRE to maximize effective use of resources to achieve educational objectives.

#### 2.3. Warlord:

- 2.3.1. Establishes annual schedule of events to ensure proper use of resources and to achieve sponsor objectives. Schedules meeting with school commandant and CADRE commander to review after action reports (AARs), critiques and WRD.
- 2.3.2. Briefs school commandant and CADRE commander on AARs and critiques for annual wargames at Air War College (AWC), Air Command and Staff College (ACSC) and School of Advanced Air and Space Studies (SAASS) immediately following game execution (June). For Squadron Officer College (SOC), AARs and critiques are briefed quarterly through the SOC Curriculum Review Board (CRB) to the SOC Commander. Warlord should schedule an annual review of SOC wargames with the SOC Commander and CADRE Commander following the July CRB.

- 2.3.3 Schedules annual review and approval of WRD with school commandant and CADRE commander (August). Discussion items include: desired learning objectives; roles of students, faculty and control; wargame scenario; models and simulations; and milestone timeline. For SOC, this will be held in conjunction with the annual review in paragraph 2.3.2.
- 2.3.4. Works directly with the wargame director to develop the WRD and ensures the wargame meets DLOs.
- 2.3.5. Actively participates on the wargame design team.
- 2.3.6. During wargame execution, is the final authority for decisions affecting the sponsor's curriculum, schedule or attainment of educational objectives.
- 2.3.7. Critiques the wargame and recommends improvements if appropriate.

#### 2.4. **CADRE/CC**:

- 2.4.1. Provides wargaming support to meet Air University educational objectives. Responsible for the progress of all AU-sponsored wargaming. Oversees requirements in coordination with school commandant. Plans, organizes and executes wargames in support of educational objectives approved in the WRD.
- 2.4.2. Deconflicts wargame events AU-wide.
- 2.4.3. Provides AU/CC status of scheduled wargames.
- 2.4.4. Approves WRD in coordination with school commandant.
- 2.4.5. Appoints wargame director for each wargame.

#### 2.5. **CADRE/WG:**

- 2.5.1. Oversees CADRE's Air Force Wargaming Institute. Designs, develops and maintains wargames in support of Air University objectives.
- 2.5.2. Maintains a master schedule of all wargaming support. Optimizes AU-wide wargame schedule to ensure availability of resources.
- 2.5.3. Provides wargaming support as required in support of other services, Professional Military Education (PME) schools and operational commands.

#### 2.6. Wargame Director:

2.6.1. Develops the WRD in concert with the warlord to ensure the wargame meets the sponsor's educational objectives.

- 2.6.2. Oversees development of wargame materials, models or simulations, and computer support for execution. Coordinates with warlord on all wargaming issues that arise during wargame execution.
- 2.6.3 Organizes the control team to monitor blue, green and opposing forces (OPFOR) team activities. Acts as command authorities and performs processes not explicitly played in the wargame. Ensures player actions and adjudicator assessments are politically and militarily credible.
- 2.6.4 Maintains wargame direction, tempo and timing within established guidelines. Clarifies conditions, reports, rules and procedures. Ensures compatibility of player actions with the sponsor's objectives
- **★3. Procedures.** A sample scheduling milestone chart for AWC, ACSC, and SAASS is found at attachment 3; attachment 4 is a milestone chart for SOC wargames, and attachment 5 is a chart for scheduling milestones for new or modified wargames.

## 3.1 **Scheduling:**

- 3.1.1. Wargame sponsors coordinate schedule for faculty training and wargames for next academic year by June.
- 3.1.2. CADRE coordinates and publishes AU-wide deconflicted wargame training and execution schedule by July.

# 3.2. Development and Conduct of Wargames:

- 3.2.1. **Wargame Requirements Document.** The WRD is developed by the warlord and the wargame director to meet school objectives. The school commandant and CADRE/CC sign the WRD by August. For SOC and other continuous games, an annual review and approval of the WRD will be scheduled in July.
- 3.2.2. **Wargame Design.** The WRD is the method that describes the type of game a school requires and is the tool from which CADRE will commit resources to meet school objectives. Development of this document is critical to the timely and effective planning and execution of a wargame.
- 3.2.3. **Wargame Development.** The wargame design team with augmentation by the wargame sponsor:
- 3.2.3.1. Prepares wargame instructions and scripts.
- 3.2.3.2. Develops scenarios; builds the wargame database.
- 3.2.3.3. Establishes command, control and communications procedures for the wargame.
- 3.2.3.4. Develops or modifies and tests computer software appropriate for the wargame.

- 3.2.4. **Wargame Testing.** The wargame design team conducts a demonstration of the wargame for the wargame sponsor in accordance with the WRD. The wargame sponsor resolves discrepancies with additional testing and certifies that the wargame satisfies their college's educational objectives.
- 3.2.5. **Wargame Preparation.** The wargame director and warlord ensure:
- 3.2.5.1. Lists of participants (OPFOR team, blue team and control team) are accurate and the participants are properly trained.
- 3.2.5.2. Security clearances are confirmed and access control system is updated.
- 3.2.5.3. Seminar areas are properly configured (includes computer equipment, room arrangement and administrative supplies).
- 3.2.6. **Wargame Execution.** The warlord declares the start of the wargame. Through the control team, the wargame director ensures the wargame is conducted in accordance with established rules and procedures to achieve educational objectives.

# 3.2.7. Post-Wargame Analysis.

- 3.2.7.1. The wargame director conducts an informal debriefing session at the conclusion of the wargame. The session includes all wargame participants (warlord, blue team chief, OPFOR team chief and control team chief). The wargame sponsor also has an opportunity to critique the wargame.
- 3.2.7.2. The warlord and wargame director design a single comprehensive survey administered to all students, faculty and controllers. Results of the survey will be included in the AAR.
- 3.2.7.3. CADRE prepares a detailed AAR within one month of the conclusion of the wargame (1-2 weeks for SOC wargames).
- 3.2.7.4. The warlord and wargame director will brief school commandant and CADRE commander on results of wargame and critiques within one month of wargame termination. SOC briefs results of their wargames and critiques quarterly.

DONALD A. LAMONTAGNE Lieutenant General, USAF Commander

#### GLOSSARY OF REFERENCES AND SUPPORTING DOCUMENTATION

# References

Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms

## Abbreviations and Acronyms

**AAR**—After Action Report

**AFWI**—Air Force Wargaming Institute

**ACSC**—Air Command and Staff College

**AU**—Air University

**AWC**—Air War College

**CADRE**—College of Aerospace, Doctrine, Research and Education

**CC**—Commander

**CRB**—Curriculum Review Board

**DLO**—Desired Learning Objective

**DoD**—Department of Defense

**OPFOR**—Opposing Forces

PME—Professional Military Education

**POC**—Point of Contact

**SAASS**—School of Advanced Air and Space Studies

**SOC**—Squadron Officer College

**WIG**—Wargame Integration Group

**WRD**—Wargame Requirements Document

#### **Terms**

**AU-sponsored Wargame**—Wargame designed and developed by CADRE. Gaming events developed by other organizations are not subject to the requirements of this instruction.

**Blue Team**—Players representing the United States, allied or friendly forces. For AU-sponsored games the blue team is usually composed of students executing a school curriculum. For wargames sponsored by operational commands, the blue team is usually composed of members of the sponsor's staff and may include actual position incumbents.

**Computer-Assisted Wargame**—A wargame in which players or umpires use computers to assist with bookkeeping, computations, or informational displays such as orders of battle, force movement or simulated outcomes.

**Exercise**—Any activity involving the operations of actual military forces in a simulated hostile environment. Exercises include execution of decisions and are considered training vs education. **EXAMPLES:** Red Flag, Green Flag.

**Model**—An application that approximates, represents, or idealizes selected aspects of a real-world process, concept or system.

**Simulation**—An imitation of the function or functions of a system.

**Wargame**—Per Joint Pub 1-02, wargame is a simulation, by whatever means, of a military operation involving two or more opposing forces, using rules, data, and procedures designed to depict an actual or assumed real life situation. *EXAMPLES*: Air University wargames such as Solo Challenge and Aerospace Exercise.

**Wargame Design Team**—CADRE's cross functional team led by CADRE/WG wargaming operations. This team designs the structure of the wargame to meet the DLOs specified in the WRD.

**Wargame Director**—CADRE's POC responsible for planning and execution of the wargame. Coordinates with the warlord for wargame development and execution.

**Wargame Integration Group**—An integration group composed of representatives from all AU colleges involved in wargaming for the purpose of increasing knowledge of gaming activities and improving the utility of wargaming in support of professional military education.

**Wargame Requirements Document**—A contract signed by the respective school commandant and CADRE commander for a particular wargame. WRD is an annual document that details the purpose, objectives, major assumptions, requirements, responsibilities and schedule. For recurring wargames, the WRD may be a standing document but should be reviewed annually for applicability. (See Attachment 2 for sample format).

**Wargame Sponsor**—Any organization requesting CADRE support to meet the educational goals of the established curriculum.

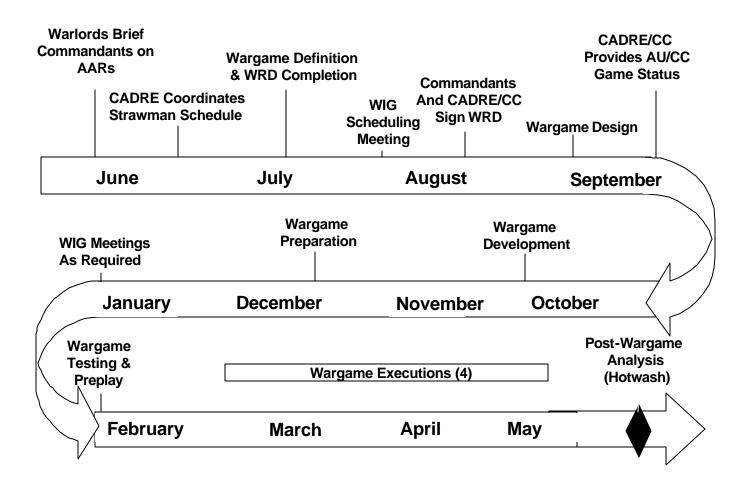
**Warlord**—The wargame sponsor's principal POC between the sponsoring organization and CADRE. Establishes wargame objectives and requirements.

# EXAMPLE FORMAT WARGAME REQUIREMENTS DOCUMENT (WRD) (WARGAME NAME)

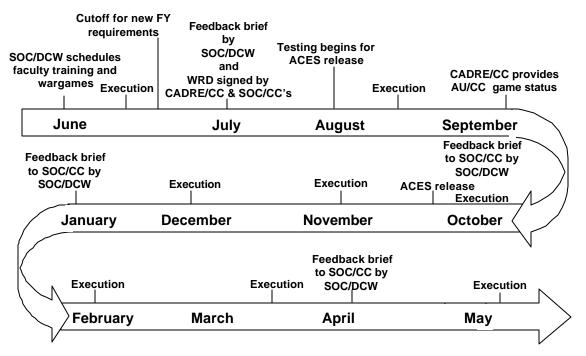
- A2.1. **General.** A general introductory statement describing the wargame. The introductory statement includes the following information: name of wargame, dates of play, location of wargame, participants and participating agencies or organizations, additional sources of support, and supplementary background information or limiting factors.
- A2.2. **Purpose.** A brief statement of the general purpose of the wargame.
- A2.3. **Game Sponsor and Wargame Coordinator.** The name of the sponsoring organization and representative.
- A2.4. **Wargame Director.** The name of the CADRE individual responsible for support to the sponsoring organization in developing and conducting the wargame.
- A2.5. **Desired Learning Objectives.** A list of the key elements and deliverables to be observed or tested that drive both the development and conduct of the wargame. Be as specific as possible.
- A2.6. **Major Assumptions.** List key assumptions or factors used to develop the wargame or wargame scenario. Factors such as indications and warning of impending hostilities, level of play (global, theater, etc.), focus (pre-hostilities and deployment, employment, etc.), forces available, orders of battle, and any limitations imposed by the simulation or software should be included.
- A2.7. **Security Classification.** Level of classification of wargame play and any materials used to support the wargame, restrictions due to foreign (non-US) participation or observation, and availability of classified material storage containers (for wargames played at the sponsor's location).
- A2.8. **Frequency and Duration.** Describe how often you intend to conduct the wargame (number/year and projected dates) and how long each wargame will last.
- A2.9. **Location.** State where the wargame will be conducted (sponsor's location). Include building and room numbers as appropriate.
- A2.10. **Level of Play/Anticipated Player Roles.** Indicate player positions/levels of all players' staffs (OPFOR, Blue and Control) for each participating organization. Include an anticipated wargame chain of command.
- A2.11. **Computer Support and Hardware Requirements.** List desired computerized simulation support, adjudication procedures and computer hardware support requirements.

- A2.12. **Communications.** List communications support requirements including secure voice (STU-III), dedicated and lease lines, and other intra or inter-organization communications requirements.
- A2.13. **Analysis Plan**. Provide a brief statement outlining the mechanics of wargame analysis including individuals or organizations responsible for observation of wargame play, collection of data, and preparation of the post wargame report.
- A2.14. **Tentative Schedule of Events.** List the major action items, deadlines for completion, and offices of primary responsibility for wargame development. Outline the major activities (observables) in the daily schedule during the play of the wargame (refer to Attachment 3/4/5 as applicable).

Attachment 3
Scheduling Milestones for Annual Wargames for AWC/ACSC/SAASS



# **Scheduling Milestones for SOC Wargames**



- 1. CADRE prepares a formal After Action Report within 1-2 weeks following every execution.
- 2. Wargame Design/Development/Preparation/Testing&Pre-Play are conducted prior to initial the Execution and then, as required, each year prior to the annual software release.

# **Scheduling Milestones for New Wargames**

or

# **Wargames with Major Changes**

